

# VIRGINIA WILDLIFE

JULY 1959

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Photo by H. C. Johnson from National Audubon Society

*Ruby-throated Hummingbirds* weigh but one tenth of an ounce, yet with their wings beating seventy times a second they can fly sixty miles an hour and will battle birds of any size.



# VIRGINIA WILDLIFE

Published by VIRGINIA COMMISSION OF GAME AND INLAND FISHERIES, Richmond 13, Virginia  
*A Monthly Magazine Dedicated to the Conservation, Restoration, and Wise Use of Virginia's Wildlife and Related Natural Resources, and to the Betterment of Hunting, Fishing and Outdoor Recreation in Virginia*

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### *Cover*

"The few remaining examples of natural plant-animal communities along the seacoast should be zealously preserved and protected from further modification," according to *Our Vanishing Shoreline*, published by the National Park Service.

Virginia State Chamber of Commerce Photo

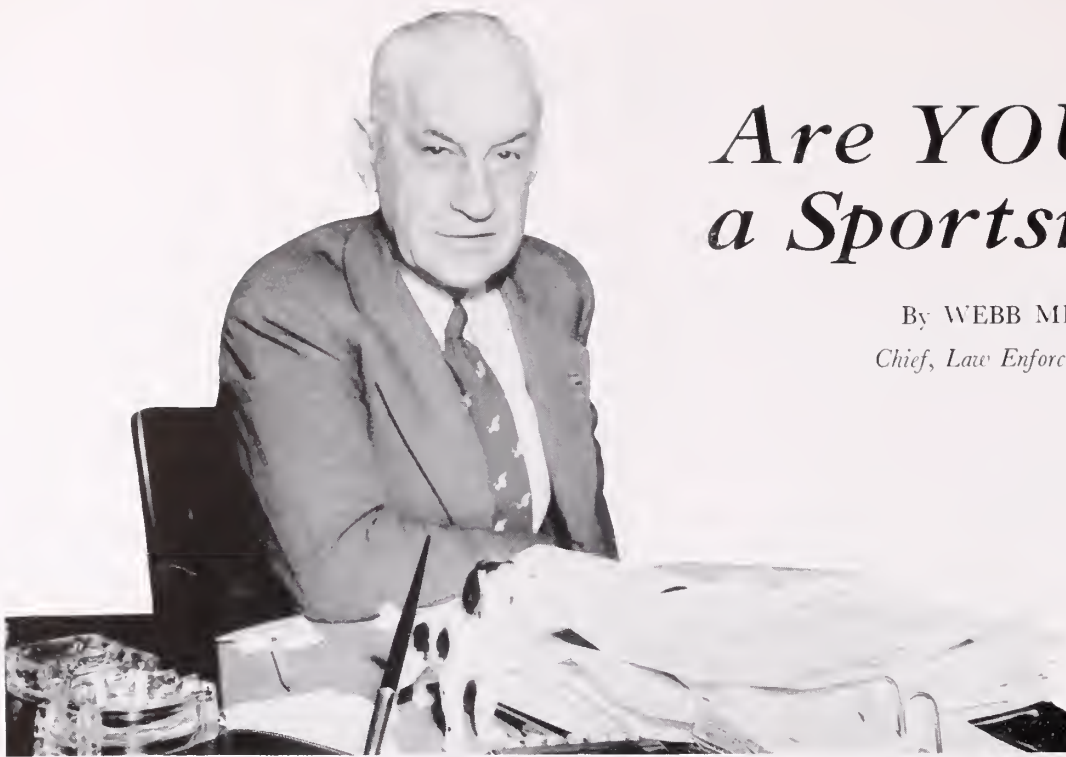
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J. J. SHOMON, *Editor*  
S. P. DAVEY, *Managing Editor*  
M. R. CUTLER, *Associate Editor*  
L. G. KESTELOO, *Photography*  
FLORENCE BLANKENSHIP, *Circulation*

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Chief Midyette

# Are YOU a Sportsman?

By WEBB MIDYETTE

Chief, Law Enforcement Division

THE other day a group of us were discussing the idea of placing signs along our trout streams calling attention to *sportsmanship*. We envisioned a sign to read: "Attention, Fisherman: Please cooperate with landowners by taking care of property on this stream. Otherwise, the stream will be closed to fishing."

What does this mean? What does sportsmanship, in fine print, really mean?

More than thirty years of law enforcement experience in Virginia makes me believe one thing in particular—we all like to be called *sportsmen*, but very few of us really are.

We all should know that living right is only to practice the Golden Rule. Most of us believed this as boys. Why not believe it now only more fervently—as we grow older? The man who "stretches his limits" or "takes a little more than his share of game or fish" or "sneaks a few out" before the season is no sportsman. Neither is he true to the teachings of the Golden Rule. We know that there are a lot of good, avid souls who do not think it is bad to take an extra fish, animal or bird. Their excuse is simply, "Well, I don't go hunting and fishing very often, and I might as well get them while the getting is good." Is this sportsmanship? Is this treating your fellow hunter or fisherman right? What about the landowner? When we hunt or fish (of course, with his permission) on his lands or in his waters, do we share our creel or bag with him? Is he not sharing in the production of these things?

Yes, sportsmanship is very much like "Mark Twain's weather"; we talk a lot about it, but do nothing about it. We need less telling and more doing.

There are just too many of us for each to have his own way, or to try to exercise a law unto himself. By following this pattern we would become a nation of men each led by his own conscience—every man a law unto himself—

instead of a nation of men governed by constitutional laws and sovereign rights.

Thomas Jefferson and John Marshall both said, in effect, that the common good must override the personal good (largely selfishness) of individuals. If such were not the case, we would be a nation of bandits.

We folks here in Virginia, for the most part, are fairly good at observing the game and fish laws, and it is only the occasional sneak, pilferer or game hog, and the unthinking individual, that shows himself and needs to come under the law. If more hunters and fishermen, who wish to be known as *real* sportsmen, were good custodians of their sport and exercised stewardship, there would be more of everything in the great outdoors to go around. The real sportsman not only should observe the game and fish laws himself, but should do everything in his power to see that others also observe the law. However, it would appear, as someone has so rightly said, that the enactment of laws does not make men nobler, but craftier.

The job of game law enforcement cannot be done by the game warden alone. There are too many people and too few wardens. What is needed, and what we must have, is more individual citizenship responsibility in the observance of game, fish and conservation laws. And by citizenship responsibility is meant, also, the reporting of law violations whenever and wherever they occur. It is advising the game warden or personally being concerned about the violations in question. Yes, it's even assisting him and other law enforcement officers in actually apprehending the violator and bringing him to justice.

If this is done, Mr. Hunter and Mr. Fisherman, we will be worthy of our God-given heritage of the great outdoors and on our way to meriting the badge of true SPORTSMANSHIP.



# Why is Conservation of Wildlife Important to Youth?

By GENE WOOD

**W**HY is there such a close relationship between youth and wildlife? The answer, it seems to me, is based on the fact that youth represents the spirit of God's *Man*, and wildlife represents the spirit of God's *Earth*. When the world was created, man was given dominance over every creature. This dominance was not to be used as an advantage for the destruction of nature but rather as a force for her protection. Man in his youth took from nature only what he needed for survival; but as civilization advanced, he began to squander his natural resources—sometimes just for the fun of it. As he climbed the ladder of time, he saw the passing of the great role assigned him by his Creator—that of being a protector, not a destroyer of nature.

In the eastern part of our world (commonly called the Old World) as man evolved from one age to another, he was constantly taking a harvest from the field and forest, but he never made an effort to replace what he had taken. And it came to pass that the land became barren and yielded not her resources of nature because they were gone or greatly depleted. The story is the same wherever men have settled and advanced their culture. The woodlands were cut, the home of wildlife destroyed, the soil eroded, and nothing but a poverty-stricken time lay ahead for the inhabitants. In the Far East we could probably find the worst, yet the most typical, example of the whole situation. Once the lands of China were rich and fertile. The forests were great and they teemed with life. But then came a prodigal hand that cut down the forest, destroyed the wildlife, crushed these invaluable resources between two hands of misuse and corruption and cast them into the sea. Then the rains came. What was left of the topsoil was washed down to the ocean, and thereafter the inhabitants of the land lived in poverty and suffering.

With the founding of the first settlements in America, man was given a new chance. Here on the American continent there existed a wealth of natural resources so great that it was beyond the comprehension of man. The opening up of this great wilderness paradise gave man

another chance. Although his age was old, it seemed that he was being given back a part of his youth. He was being given another chance at being a protector. He needed only to look back to his original home to see what wastefulness and destruction of nature had done to the economy of the land. But the settlers had little foresight. They could think only of getting rid of the treacherous forest. They didn't need it. They wanted open space to farm; so they made the same mistake in America that their ancestors had made in other parts of the world. They cut and burned the forest just to get it out of the way. They had no idea nor did they care about how long the forest had existed, of what value it really was, or what getting rid of it would mean basically. Men destroyed the forests wherever they settled. They did not realize that in this

destruction they were ruining the soil that they were burning with desire to farm.

Neither did they realize that they were destroying the basic key to the wildlife resource. In the destruction of the forest the would-be farmers took away the home of wildlife. They destroyed food and cover and therefore made a natural existence impossible for them.

America became known as the land composed of milk and honey. The land and its riches were here for the taking. People came to the New World as the mountain stream rushes on to some big river where it can find contentment and a haven. The population grew by leaps and bounds and, with the growth of population, the frontier was pushed westward.

The exploration of the continent by the trappers, fur traders, and adventurers really opened up the western part of the country. They came home telling tales

of mountains of solid gold, of plains black with buffalo, of creeks swamped with beaver. Some of the stories were true, some partly true, and others just dreams. Nevertheless, the men were restless for newer lands and more riches, and so they moved westward. They crossed the plains that were black with the shaggy buffalo or bison. They discovered gold in the Black Hills of the Dakotas. They crossed the Rockies, where they found beaver and almost every other form of wildlife in abundance. The white men crossed the Rockies, the Cascade Ranges, and then



Governor J. Lindsay Almond congratulates wildlife essay contest scholarship winner Gene Wood in the state Senate Chamber May 4, 1959.

Twelfth-grade scholarship-winning essay for the 12th Annual Wildlife Essay Contest, written while Gene attended Bedford High School, Bedford, Virginia.

went down to the Pacific Ocean. Here was the end of the frontier. Here the white man should have realized his mistakes, but he didn't. He went on to waste, mutilate, and finally destroy the resources of the land.

The American continent had now been explored. In the eastern part cities had sprung up, and already people had tasted the wrath of their own wrong-doing in the previous years. Many farms were run-down and many even deserted because the soil was no longer rich. In many places there were acres and acres of eroded hillsides because of the lack of reasoning when the forest was destroyed.

It was at this time that the resource of wildlife was realized to be valuable. It was valuable because it could now, as in the past, act as a food supply, but now there were more people, so market hunting began. This new answer for destruction of wildlife meant extinction for some birds and mammals and the threat of it for many others. At that time probably the most common migratory bird was the passenger pigeon. In the fall and in the spring it migrated by the thousands. It was said that many times a very large flock would blot out the sun at the middle of the day. After the beginning of market hunting, these spectacles did not last long. Twice a year from one end to the other of the pigeon migration route there were men shooting them, and trapping them by every means imaginable. Each year they decreased in number more and more. Today they cannot be seen, for they are extinct. They can never be restored by the hands of mortals. Man destroyed this species of birds through greed and ignorance. He totally blotted out the existence of living creatures that were not rightfully his. The same thing happened on the coastal migration routes. Ducks, swans, and geese were slaughtered by professional hunters who never had heard the words "conservation of wildlife." They destroyed, mutilated, and wasted everything that they could get in the sights of their guns. In one year one man bragged of bagging 139,000 birds and mammals. About the same time another hunter bragged of killing 7,000 canvasback ducks in a single year. Chesapeake Bay hunters, armed with swivel guns, killed 1,500 ducks in eight hours for a New York market. Birds and mammals alike were destroyed and sold to food markets.

In the plains country of the West, the buffalo was undergoing the same wasteful destruction. The ranchers and farmers were now taking over the plains, and there was no room for the buffalo. Thousands were killed by railroad hunters such as the famed "Buffalo" Bill Cody. The only things taken from the dead animals many times were the hump and tongue. Then came the hide hunters. They killed for the hides and then sold them to the manufacturers for making coats and various other items. Then the finishing touches were put on by the "sport" hunters. Usually they were the richer class who came to ride down and shoot the buffalo just for the sake of killing. They never made use of any of the animals; they just shot them down to be able to say that they had killed so many buffalo. These men called themselves "sportsmen."

The same three words could summarize the situation of wildlife all over the continent: waste, mutilation, destruction.

Right up until the twentieth century this practice of the devastation of wildlife and our woodland resources continued. Then Mr. Theodore Roosevelt stepped into the picture. Mr. Roosevelt was not only a citizen with much political power, one who loved his country, but he was also a famed sportsman. He saw, as many others were beginning to see, the vanishing of our greatest American heritage. Something had to be done, and he did it. Prospective resort areas, whole mountain ranges, lakes, and streams were bought by the government and converted into game reserves, national forests and wildlife sanctuaries. Soon the nation was slightly touched with the work of conservation. The people began to look back on what had been done with awesome regret. The individual states began the park systems of saving the homes of wildlife as well as wildlife itself. New laws protecting it were being written concerning the conservation of wildlife. Fish and game commissions were set up to enforce their laws and to see that measures of conservation were carried out. Virginia was no exception in this nation-wide restoration march. The Virginia Commission of Game and Inland Fisheries was set up to carry out Virginia's plans for conservation of wildlife. At first the Commission and its employees were just another legal formality and were not too respected by the people. Then it grew in strength and the people began to realize that this was an agency to be reckoned with, not to be underestimated.

The damage has been done, and is still being done, but a consoling point is that we are now trying to remedy the situation. Now it is up to us, the youth. Our ancestors made a mistake—a big mistake—and now we must pay the price of it. What has been done cannot be undone, but it can be repaired to a degree, and it is up to us, the youth, to do it.

In their ignorance our ancestors destroyed to the point of extinction ten species of North American birds. The once common passenger pigeon is among these ten and so are others such as the heath hen, ringneck duck, and the trumpeter swan. Today there are twenty-six species of North American birds threatened with extinction. There are also ten species of North American mammals extinct and twenty-six other species threatened. They all met this dreadful fate because of the same unreasonable, wasteful destruction. Will this self-same destruction carry on into future generations? Who will carry it on, or who will stop it? The answers to these questions lie in the decision of the youth of our country. We can within the next fifty years (for by then today's youth will have assumed almost total leadership of our country) bring about the total destruction of our wildlife resource. We could tear down everything that has been done in the march of restoration of wildlife in our country.

Should we illogically follow this path, we would find in the end a poverty-stricken nation, ashamed of her nakedness and unworthy of being a leading power in a new world. On the other hand, we could choose to carry on the work of restoration. We could all support the fight for conservation of our wildlife resource, but this fight would never end. We and the generations that followed





U. S. Forest Service Photo

"Men destroyed the forests wherever they settled. They did not realize that they were ruining the soil they were burning with desire to farm."



U. S. Soil Conservation Service Photo

"In many places there were acres and acres of eroded hillsides because of the lack of reasoning when the forest was destroyed."

would have to carry on as caretakers to this valuable resource. This path would lead on to greater opportunities for the increase of our wildlife. With a greater basic economic reserve such as our wildlife resource, we would be more capable of being a world leader.

We argue the question of "Why conserve our wildlife?" for time on end. Finally the question arises, "Why should we concern ourselves?" If we thought on the subject just a little bit more deeply and a little bit longer, this foolish question would not arise. If we could see a stream only three days after a mill or factory had poured a refuse dye or other harmful liquid into it, we would understand. We should see banks laden with dead fish. We should see life blacked out in thousands of living creatures. There would be fish that were stronger and more healthy than the others or maybe had been in a tributary and were just now being exposed to the waters of death, turned upon their sides on the surface of the water. Their gills would be weakly opening and closing. We could punch one with a stick and his wild instinct would tell him to erect his fins and flee; but his spirit would be broken and death near. Picture millions of these streams all over our country and then you can imagine how degrading these acts are. Not only do the mills destroy resources. There is also the unwise farmer who in the winter cuts away all brush and trees standing along a creek bank. The rains come and there is not enough plant life to hold the sod. The top soil is washed into the creek and then downstream. The stream swells and starts cutting away at the bank, taking in the top soil and washing it away little by little. And then there is the careless hunter, camper, and vacationer, who burns down thousands of acres of timber worth millions of dollars. He destroys the home of wildlife and wildlife itself. He destroys a perfect watershed, and when the rains come, the creeks will be laden with mud and silt.

In each case you can multiply the scenes and distribute them over our country and see the waste of billions of dollars of our wildlife resources each year. You can see the state that our country would reach unless the leaders of our nation today and the youth—the leaders of to-

morrow—take a deep interest in wildlife and its related resources.

If wildlife is so important to us, then how can we help in its conservation? If this question arises, we need to look to our youth organizations. By being bonded together in clubs we can accomplish much. If we are to be tomorrow's leaders, why don't we prepare today? We can train ourselves for tomorrow's responsibilities and further the cause of conservation of our natural resources at the same time. We can get clubs interested in conservation and conservation work. If in our individual clubs and organizations we preach the gospel of conservation and then spread out and influence our community, then our success knows no bounds. It is up to us as the youth of our country to begin to assume its responsibilities. How will we handle this responsibility?

We now live in an age of scientific discovery and development more advanced than any ever experienced by man. We live in an era in which we depend more and more on our basic natural resources. We now realize, as we look back on our history, that our wildlife and its related resources are actually the bases of our economy. As the future leaders of our nation, it is up to us to establish and maintain a sound foundation for the American future, and we can accomplish a large part of that work through the conservation of wildlife. If we do not respond to these demands, then we shall be poor citizens and even worse leaders. Then where will the future of our community, of our state, of our nation, and of our world be?

Through his infinite wisdom and ultimate purpose God created both man and beast. To man he gave reasoning. With this reasoning it is up to man to work out a plan of survival for both.

In the creation man was given dominance over the fish of the sea, the fowl of the air, the beast of the land. He was given these gifts to be utilized to his advantage. In the use he was supposed to have made wise decisions. Has he made decisions that would serve him best? What decisions concerning his gift will he make in the future?

*For real mid-season outdoor sport—*

## Give Me the Natives

By J. J. SHOMON

*Chief, Education Division*

**H**OW would you like to steal away on a hot sweltering day in July and forget your worries on a mountain brook cold as ice water? And to add to this delightful thought, how would you like to have myriads of beautiful brook trout around just bumping at your boots to get at your fly?

If you're an average fisherman in the Old Dominion with even a small yen for trout fishing, I'll wager you'll say **WHEN DO WE GO!**

Well, that answer, my friend, depends upon you. We have the water, we have the location and, believe it or not, we have native brookies and rainbows that go begging. Let me explain.

First, let it be said that Virginia is not an exceptionally good trout state, but as the Appalachian states go in the South it is fair country. Any state that has 141 creditable trout streams stocked by the game commission and perhaps another 150 streams carrying native trout is not to be sneezed at. All of these streams, of course, are not in top shape in the summer; that all depends on the weather. If we have a normal amount of rainfall during June and July, the streams will be in good shape. Those in drought areas, of course, are pretty well done for. But even drought in Virginia is regional. If Highland and Bath Counties are dry, chances are fair that the streams in Patrick or Smyth or Washington are all right. In my twenty summers in the Appalachian region, I have failed to see a period when some area for native trout fishing can't be found.

If we have the water, then what else do we have to draw the fisherman out of his lethargy and get him flipping wets or dries on a trout pool? Well, for one, we have as beautiful a mountain trout country as can be found on this globe, with all the seclusion and interest and fascination one can want. What nobler trout water can be desired than the quiet upper Dan in Patrick County or Back Creek in Bath or the fabulous Bullpasture? Springs and creeks flowing into these majestic rivers are full of colorful small natives.

What nicer scenery can you find than the high country around White Top and Mount Rogers or Burke's Garden? Fishing country with breath-taking beauty—Virginia has its share of it. All you need to do is exert a little effort to find it.

Now, if the water and the scenery are still not enough to attract you, there's the trout themselves. In most sections where native trout water is found, the speckled brook trout and, to a lesser degree, the introduced but now breeding rainbows are found in good numbers.

How much is good numbers? Well, the fish biologists say, more than you really think. These technicians have found through the use of fish shockers that native trout in our smaller streams are present in unbelievable numbers. So abundant they are, in fact, that fishermen who say the streams are fished out couldn't believe their eyes. On many streams these technicians discovered as many as 1000 native trout per mile of streams.

Fished out! Not on your life. Fished out for those not knowing *how* to fish for natives, perhaps, but not fished out by a long shot.

Of course, there is such a thing as technique which, when properly acquired, with a little know-how, will always reward the angler with fish.

Now I don't profess to be an expert myself but I have managed to follow my share of trout water and, in my book, you can give me the natives every time.

Personally, I think that you can take more trout with artificial lures in July and August than with anything else. And here, of course, the dry fly, well placed, quietly thrown, is a killer. I am of the opinion that for our native trout almost any fly, when thrown correctly, will take fish. These wise old big boys, especially the browns (of which we have very few), however, are a different story. They haven't grown big for nothing.

Speaking of fun with the little natives, I recall an incident some years ago that makes a case in point.

I was fishing with my ranger school companion, Sedg Watson, and we were approaching one of his special pools in Bath County.

"Now that hemlock place," Sedg pointed it out with the solemnity of a deacon, "is just full of trout—natives. You can catch your limit with flies right there. But be careful."

Then he proceeded to show me how to do it.

To my amazement he plowed boldly right into the middle of the pool and stomped his feet, splashing water in all directions and shaking the big brush heap in the middle.

"Great jellyfish," I yelled. "Take it easy. You'll scare all the fish."

Sedg nodded and rolled his cigar butt to the other corner of his mouth. "That's the technique. You gotta scare 'em first, then nail them gingerly with those sunken flies when they come out to investigate."

Flabbergasted, I waited to see what happened. Sure enough, after twenty minutes, Sedg sneaked out brookie after brookie in what appeared to be a spell over the trout.

When he had six, he left the pool to me and went downstream for his additional two.

Needless to say, I didn't do as well but I did get a couple.



It proved to me that there was still another technique to be mastered to get natives.

Why not develop your own this summer and get in on some of the fun that is passing by the board?

As to where to go specifically, every angler has his favorite spots. I have mine and I don't mind sharing their secret location with other waltonians.

If you're in the Washington-Arlington area, I suggest you investigate the little brooks—some 25 of them—in the Shenandoah National Park. The rangers can pinpoint them on a map for you.

The upper Rapidan—I mean way up—is one of my favorite spots. So is the upper Rose in Madison County.

If you don't mind traveling a bit, take a saunter into Bath County and try Dry Run and upper Wilson's Creek.

For Southside Virginians, a trek through the beautiful gorge country of the Dan River in Patrick County is a real experience.

Finally, my favorite of favorites—and this is private water and permission is needed—is Little Stony in Giles County. Here the country and the native brookies will make you forget there is a paradise. You'll be in it.

*"Fishing country with breath-taking beauty - - Virginia has its share of it. All you need to do is exert a little effort to find it."*





U. S. Forest Service Photo

Campgrounds such as the one above are scattered throughout the two national forests in Virginia. Campers are also welcome in Virginia's state parks and on lands controlled by the National Park Service and the Army Corps of Engineers.

## Camping in Virginia

By RICHARD DAWSON

*Portsmouth, Virginia*

CAMPERS are the friendliest and most helpful strangers that you will meet anywhere. They come from all over our nation, and every camper is anxious to tell you about his favorite campsite. Each one has a bag full of tricks, know-how and gadgets to make camping more efficient. What makes campers such a pleasant group, I believe, is simply because they are all outdoors together "in the same boat."

The sun doesn't shine all the time on the camper, and so the best camping motto I can think of is that of the Boy Scouts—"Be Prepared." Camping is enjoyable for the whole family and, although it does take a certain amount of work, this is far over-shadowed by the pleasure of being away from home and on your own together. If you are worried about pitching your tent and being all alone, you can rest assured that you won't be. It seems like the camping bug has bitten everyone at the same time.

The first thing a camper needs is a check-off list to be kept and improved upon as long as you ever intend to go camping. Without this list you are sure to forget something and suddenly find you've forgotten the lantern as the sun is going down.

The tent is the most expensive item for the camper. Umbrella-type tents seem to be the most popular. A tent measuring approximately 10 by 11 feet is a good size for a family of four using sleeping bags and air mattresses.

Use a canvas bag for carrying the tent and storing it for the winter. Tent stakes take a beating, and our metal stakes looked like pretzels after pitching the tent at Big Meadows on the Skyline Drive. Wooden stakes may be better and are cheaper, I'm sure.

Sleeping in a sleeping bag on an air mattress is very warm and comfortable, and the mattresses take very little space when packing the car. A regular tire hand pump fitted with a home-made gadget to fit over the valve on the air mattress saves time and effort. The ideal pajamas for those chilly nights in the mountains, our family has found, are long-handled underwear. You might laugh now, but wait and see.

A stove and a lantern, both using white gas, work fine. A metal stand for the stove is handy. I fill the lantern and stove before leaving home and then carry a full gallon of white gas, which lasts most of the week. We also bring along a small charcoal burner. Carry your wooden stick matches in a screw top jar. If you have a waterproof match holder, fill that and bring it along just in case.

I think a tarp to go over your table at the campsite is a must. It protects you from the sun, rain, falling bugs and leaves. (If the word "bugs" upsets you, camping isn't for you.) We use a lightweight ten-foot-square tarp that doubles for a car-top carrier cover. You may want to use a larger one. Metal poles may be used to hold up



the tarp, or some clothesline can be used to string it up from nearby trees.

We always take along an ice chest, and buying ice every day has never been a problem. I leave the drain plug to the ice chest open and the chest on an angle so it will drain off. I think the ice will last longer if this is done.

I made what we call a "grub box" out of some old wooden apple crates. We carry most of our food in this box, and a folding plastic paper towel holder is mounted on the side. An aluminum nesting cooking kit saves space and the "chief cook" says she really enjoys using it. For washing the dishes we use two plastic dish pans, one for washing and the other for rinsing. (Don't use the ice pick to chip ice in the plastic dish pan. I was careful, too, but I missed.) A can of liquid soap, a sponge and soapy steel wool pads will take care of the dish washing department. By using paper plates, hot and cold cups, we cut down a great deal on the dish washing.

Burned fingers, cuts, scratches and bee stings are a part of camping and so take along a first-aid kit. Buy one or make up your own and carry it in a small metal utility box. I would mention a snake bite kit, but I'm sure you will have much more trouble from the biting flies. Be sure to carry a spray-can insect repellent, and a bug candle might help while eating. Spray around the tent and eating table two or three times a day.

Here is another good camping motto to impress upon the children: "Don't pick anything." It may be unlawful, in the first place, and not doing it will help prevent little Mary from walking into camp to show mother the pretty green poison ivy sprig.



Commission Photo by Kesteloo  
A stove and a lantern, both using white gas, work fine. A metal stand for the stove and a collapsible metal table are handy.

Carry all of the family's toilet articles in a metal utility box or an old fishing tackle box.

Even though our tent has a sewed-in floor, we take along a plastic ground cloth which keeps the dampness from coming through. When you get ready to roll up the tent the bottom is nice and clean. Buy a cheap broom, drill a hole in the end of the handle and hang it up by a piece of rawhide run through this hole. The broom is primarily for sweeping out the tent, but it can be used to dust junior's britches if necessary. An old scatter rug just inside the tent door will help, especially during wet weather. Set your rubber car mats at the entrance to the tent.

Sitting around the campfire, after the kids have crawled in, and talking with your fellow campers is a great part of camping, but at some campsites firewood is a rare sight. At other campsites the firewood may be the size of young telephone poles. A hatchet, small ax or one of those metal-handled buck saws with detachable blade will take care of any firewood problem.

A large diaper pail with cover and a dipper will hold the drinking water. Just before sitting down to eat, put your dishwater on the stove to heat. An old umbrella, plastic rain coats, boots and rubbers will take care of those rainy days. Some campsites can really get muddy.

Here are a few more articles we recommend for camping: clothesline and clothespins, hot-plate holders, and a piece of oilcloth for the table; silverware, ice pick, can openers, cake turner and knives carried in junior's old lunch box; a small shovel or pick for digging a drainage ditch around the tent; a few nails and a hammer (The claws of the hammer come in handy for pulling up tent stakes.); a pair of cutting pliers; and wire coat hangers. (Use pliers to make hooks for lantern, dish pans, etc.) We found two flashlights to be adequate, and take along extra mantles for the lantern.

Before crawling into your sleeping bag, take your clothes (if you intend to wear them the next day) and fold and place them in your suitcase. This will keep them from getting damp during the night. When getting up on the day you plan to break camp, open the valves on the air mattresses. By the time you have finished breakfast, the air mattresses should be flat and ready to pack.

If you have to break camp in the rain (it does happen), the first opportunity you have, put the tent up in the backyard and let it dry out thoroughly. Turn the sleeping bags inside out and throw them over the clothesline. It is a little work, but what isn't that's worthwhile?

Outdoor eating is another great part of the camping trip. Our "chief cook" types out our menu at home so that we know exactly what we are going to have for each meal. This seems to work out very well and saves us carrying a lot of unnecessary groceries. The meat for our camping trips is bought the week before leaving and placed in the deep freeze. The great trick in cooking outdoors and a real test for the cook is keeping everything hot until it is time to eat. Make good use of all instant foods on the market. The everyday items we usually buy while camping are ice, bread and milk. Try to keep your meals simple but wholesome, and leave all the fancy recipes to be tried at home.

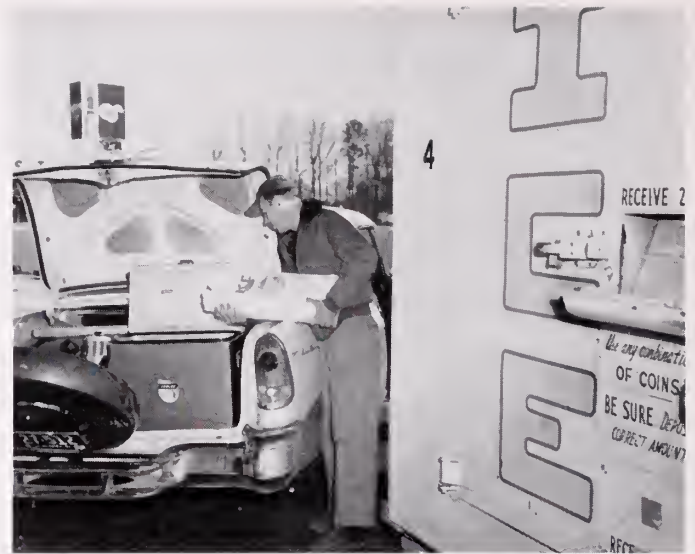


U. S. Forest Service Photo

A tarp to go over the table is a "must." Use metal poles or clothesline strung from nearby trees to hold it up.

Virginia has a number of fine campsites with modern sanitary facilities, laundry and showers. Some of the other campsites you might refer to as a little on the rough side. We like the Douthat State Park near Clifton Forge very much. It has mountains, horseback riding, fishing, swimming, hiking, boating. What more could you want? The John Kerr Dam and Buggs Island Lake near South Hill is close to home for us and we like to go there on weekends. Uncle Sam has charge of this camping area. There is fishing and swimming, and with miles of water it is an outboard motorist's paradise. If you love the mountains, the campsite at the Peaks of Otter on the Blue Ridge Parkway is great. This campsite is situated between the two Peaks of Otter. Flat Top is just over four thousand feet high, and Sharp Top is slightly lower. There's no swimming, of course, but what scenery. The nearest swimming would be Bedford County Park or Cave Mountain Lake, both about 17 miles from the Peaks of Otter. Cave Mountain Lake is another good campsite located in the Jefferson National Forest not far from Natural Bridge.

The Big Meadows campsite on the Skyline Drive is another favorite spot. If you like to hike, there is no end



Commission Photo by Kesteloo

"We also take along an ice chest, and buying ice has never been a problem," says author Dawson

to the trails. In fact, the Appalaehian Trail passes along the side of the camping area. It's only 2,028 miles long! Our family loves to swim, so we try to keep this in mind when looking around for a new campsite. Other campsites that we have scouted are Lewis Mountain on the Skyline Drive, Rocky Knob on the Blue Ridge Parkway, Fairy Stone State Park, Philpott Dam and Cave Mountain Lake.

A couple more that we would like to check on and perhaps camp at this summer are Hungry Mother State Park near Marion and Sherando Lake near Waynesboro. Most of our state parks have campsites and the only way to find your favorite spot is to give them all a try. What will please your family and be your number one campsite will cause another camper to turn up his nose and say, "I've got one better."

In spite of the rainy days, mud, flies, bees, mosquitoes and red bugs, our family still loves to go camping. I believe that any family which has a natural liking for the wonderful outdoors will thoroughly enjoy camping as an unforgettable experience. I sincerely have faith in this saying: "The family that works together, plays together and prays together will stick together," and camping is a wonderful way to find how true this is.

## Tent and Trailer Camps

Tent and trailer camps at Fairy Stone, Hungry Mother and Westmoreland State Parks are equipped with central washrooms, showers, laundry and sanitary facilities, tested drinking water, submerged garbage disposal cans and outdoor ovens. Fuel may be purchased from the concessionaire in the area. There are electric plug-ins for trailers. Hungry Mother has 30 camp sites; Fairy Stone, 30 camp sites; and Westmoreland, 30 camp sites. At Douthat, the camping area is equipped as above, with the exception of electric plug-ins for trailers. Douthat has 20 camp sites.

The charge at each park is \$1.00 per day per tent or trailer camp, this fee covering up to six persons and one motor vehicle. There is an additional daily charge of 25 cents for use of electricity. Tent and trailer campers have free use of the bathing beach and other public facilities. Staunton River, Prince Edward and Claytor Lake have no developed camping areas, but tent and trailer camping are permitted in certain areas in these parks. Space is assigned on a first come, first served basis. Maximum camping period is two weeks. *Virginia State Parks*



# CONSERVATIONGRAM

Commission Activities and Late Wildlife News . . . At A Glance

**NEW HUNTING, FISHING LICENSES NEEDED.** All 1958-1959 licenses and permits issued by the Virginia Commission of Game and Inland Fisheries with the exception of dog tags expired at midnight June 30, and new 1959-1960 hunting and fishing licenses have been required since July 1. The first shipment of new licenses and permits to the 106 court clerks and 160 agents which sell the licenses included 283,500 county hunting and fishing licenses, 235,000 state resident hunting licenses, 220,000 state resident fishing licenses, 88,100 state resident trout fishing licenses, 61,650 three-day fishing licenses, 18,100 nonresident hunting licenses, 12,500 nonresident fishing licenses and 105,500 national forest stamps.

**NEW GAME LAW DIGEST DISTRIBUTED.** Some 375,000 copies of the completely revised "Summary of Virginia Game Laws, 1959-1960 Season" have been mailed to license dealers and game wardens for distribution to sportsmen as they purchase their new licenses. Printed on blue stock in a very legible typeface, the digest is shorter than the 1958-1959 digest and, the commission hopes, easier to understand.

**FIRST IRANIAN PHEASANT BROOD REPORTS RECEIVED.** Reports of Iranian pheasant broods in the Charles City County experimental release area received by the Virginia game commission include a May 25 sighting by E. R. Patrick of Newport News (hen with young chicks about 200 feet west of Barrett's Ferry Bridge along Route 5) and, in the next two days, three more broods reported to Herman J. Tuttle, biologist in charge of the foreign game introduction program. One of these reports included two pheasant hens with between 20 and 25 chicks. These broods mark the first Iranian pheasant young produced in the wild in this country.

**NELSON COUNTY FISHING LAKE BID LET.** E. W. Yeatts of Altavista, Virginia, has been awarded the job of building the game commission's Nelson County fishing lake. Yeatts, whose base bid of \$52,210 was low among 10 bidders, has begun construction of the 49-acre fishing site, located one mile east of Arrington on the south fork of Bob's Creek. This public fishing lake - the tenth to be built by the commission in 10 years - will be stocked with bass and bluegill this winter and should be open to fishing next summer. A parking lot, access road and boat concession will be provided. The lake area, including a 50-foot strip around the shoreline, was donated by Ashby A. Lincoln, Jr. of Arrington.

**THREADFIN SHAD SUCCESSFULLY TRANSPLANTED.** State fish biologist Bob Wollitz and fish manager Bradley Rowles recently trucked some 1,800 threadfin shad 500 miles from Watts Bar, Tennessee, to three Virginia reservoirs - Claytor Lake, Philpott Reservoir and Buggs Island Lake - to provide forage for white bass, striped bass and other game fish.

**POLITICOS BAG WYOMING GAME DIRECTOR.** Wyoming's new governor and a coterie of faithful bagged their first big game trophy of the political year when able A. F. C. "Pete" Greene, director of the Equality State's Game and Fish Commission, was dismissed effective April 1, according to the Wildlife Management Institute. Greene's ouster, which climaxes 16 years' association with the Wyoming department, came as the first order of business at the initial Commission meeting. The governor's three new Commission appointees voted along party lines and provided the necessary one vote for a 4 to 3 margin. The meeting was closed to the public. No charges of inefficiency or administrative misjudgment have been made against Greene.

**RICHMOND PRINTER AWARDED MAGAZINE CONTRACT.** Everett Waddey Company of Richmond has been chosen to print Virginia Wildlife magazine for the 1959-1960 fiscal year (including this issue) based on its submission of the lowest bid on the job. Monumental Printing Company of Baltimore had printed the magazine since July 1956.

**RAINBOW TROUT FEATURED ON FOUR-COLOR CENTER SPREAD.** On the next two pages "The Stream's Food Chain" is portrayed in full color, suitable for framing. Drawn by Duane Raver of Cary, N. C., the spread features a predatory rainbow trout chasing red-sided dace which, in turn, are feeding on plankton.

## MINNOWS



## INSECTS



## MICROSCOPIC ANIMALS

## SUNLIGHT

All the creatures in a typical stream are interrelated by an everpresent cycle called the food chain. It includes organisms from the tiniest one-celled plant to the largest predatory fish. Each link in this chain is vital to life in the aquatic habitat. Since it is an "endless belt" which is continuously in motion, there is no real starting place any more than there is a final link. The foundation for the chain, however, might be said to be the basic nutrients in the water itself: decaying organic matter, minerals, and fertilizer elements. These are utilized by the tiny microscopic plants called algae. One vital force in the conversion of these elements into food for the next link is sunlight. The wonderful process called photosynthesis takes place in the chlorophyll of the tiny plants and starts the reaction. Minute animals called zooplankton or just plankton use the algae and in turn provide food for aquatic insects and even for small minnows directly.





## PREDATORY FISH

# The Stream's FOOD CHAIN



## MICROSCOPIC and PLANTS

The insects, both in their immature and adult forms, are eaten by forage fishes which are gobbled by the predatory fishes in the habitat. These larger fishes also rely on insects in their diets and so a shortened cycle must be shown. If there is an end product in this chain it is the harvested fish that man takes from the stream. Natural mortality is at work in the stream community as it is in all environments. Bacterial decay helps return the natural fertility to the streams and the foodchain begins a new cycle.



Commission Photos by Kesteloo

To the farmer whose pond has washed out as a result of burrowing, the muskrat (inset) is nothing but "bad." Author Allan advises "an ounce of prevention" in the form of a well-engineered dam.

## MUSKRATS IN FARM PONDS

By PHILIP F. ALLAN

*Biologist, Soil Conservation Service*

A COUPLE of countrymen met one day after a period in which they had not seen one another for many years. "How have things been going with you?" asked one. "Oh, some good—and some bad," replied the other. "I got married since I saw you last." "Got married, eh? That's good," said his friend. "Oh, not so good! She nagged me," was the reply. "A nagging wife's bad," commented the first. "Well, not so bad," the other answered; "she was rich." "That was good," his friend replied. "Not too good," answered the second; "she was stingy." "Too bad," said the first. "But, she built us a new house," said the married man. "Good!" said the friend. "No," the other replied, "for the house burned down." "That certainly was bad," his friend remarked. "Oh, not bad at all. She was in it!"

To the trapper in the Tidewater marshes the muskrat is "good." It may be "good," too, to those who enjoy seeing the silvery V made by the wake of a swimming muskrat at sunset on a summer's evening. The gourmet may find the muskrat delicious, if not "good." But, to the farmer whose pond has washed out as a result of burrowing, the muskrat is nothing but "bad."

Musk rats invade almost every farm pond in some localities. They even appear where no streams flow to serve as travel lanes for them, for at times of abundance muskrats travel overland.

The old adage about an "ounce of prevention" applies to the control of muskrat damage to farm ponds. Once the muskrats get to work it is hard to undo the damage.

When you are building a new pond, be sure it is constructed properly. It is always advisable to have a well-engineered dam. Soil Conservation Service engineers and other technicians skilled in farm pond construction are your best source of help. The construction features that help prevent muskrat damage are: (a) good compaction of the soil by rolling with a sheep's foot roller when the dam is being built; (b) plenty of freeboard—that is, dam height above normal water level; (c) low slopes—at least 3 feet horizontal to 1 foot vertical on the upstream face of the dam; and (d) ample top width—10 feet or more is preferable.

Studies on the prevention of muskrat damage in New York State by Arthur H. Cook showed that little damage occurred when dams were built with a berm on the up-



stream side. A berm is a shelf of soil that extends out from the dam at or a little above normal water level. Berms are most easily installed on dug-out types of ponds where the soil can be stacked away from the excavation. The width of a berm should be at least 6 feet, but it will vary somewhat depending on the size of the dam.

Alterations in construction of ponds cost money. Berms, low slopes, increased heights, and wide tops are expensive because all of them require additional soil at the base of the dam.

Cook found that damage could be prevented by installing vertically sheets of asbestos-cement in the dam. These sheets come in various sizes, but 4 feet by 8 feet appears to be most suitable. The bottom of the barrier should be 2 feet below normal water level and the top about 6 inches below the ground level. On dams that already were damaged by muskrats, Cook used a mechanical ditcher to dig a 4½ foot trench in which asbestos-cement sheets were installed. Ordinary ranges of acidity and alkalinity do not affect such sheets, and they may even become more rigid when wet.

Metal sheeting has been used to prevent or correct muskrat damage. This is quite expensive. Wire netting also is installed, either in the dam or flat on its face.

Netting is not a very satisfactory solution to muskrat problems. Rust eats out ordinary wire. In acid, organic soils aluminum netting breaks down quickly. Muskrats also can bite through wire of chicken netting size.

Muskrats do not like to burrow in materials that cave behind them. Where suitable materials are available at low cost, a facing 6 inches deep can be put on dams where muskrats are likely to burrow—that is, 2 feet below normal water level to 2 feet above. This would require about a 12 foot width on a 3:1 dam slope. Sand, rock chips, clinkers, and similar loose materials may do. The major limitations using these materials are holding them in place where there is wave action, and preventing them from gradually settling to the foot of the dam.

The actual control of muskrats is a tedious and temporary job. It can be done in various ways. Muskrats are easy to trap—just place small steel traps in their runways in about 2 inches of water. If you choose to use trapping, I suggest that you keep a few traps hung on a post near your pond. Then it is only a moment's work to set the trap whenever new muskrats appear. One farmer of my acquaintance trapped enough 'rats at his pond in two years to have coats made for his wife and daughter.

Many people shoot muskrats, although it is doubtful that you can get them all that way. They become too smart. (Editor's note: see regulations below)

Finally—though this is only a rumor—I have heard that muskrats will leave burrows if you probe into the tunnel with a bar, drop in rags soaked in gasoline and then plug the hole. Of course, by this time the damage has been done.

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## Summary of Virginia Trapping Laws, 1959-1960 Season

A license is required to take any wild bird or wild animal.

Residents under 16 years of age do not need a license to trap but must have a license to hunt. Landowners, their spouse and children, and tenants who reside on the property and have the written permission of the landowner are not required to have licenses to hunt and trap on the landowner's property only. Those who trap for rabbits with box traps only do not need a license. Licenses are required on lands owned by clubs or corporations.

A "resident" is a person who has resided in the city, county or state for 6 consecutive months immediately preceding date of application for license. In addition, members of the U. S. Armed Forces stationed in Virginia, students attending bona fide schools in Virginia, and legal voters may purchase, upon proof of status, resident hunting and trapping licenses in the county in which they are stationed, located or registered.

Licenses issued by the Commission are sold by clerks of the Circuit Courts of the counties or the Corporation Courts of the cities and other authorized agents.

### LICENSES

City resident to trap in city of Hampton.....	\$ 3.00
County resident to trap in county of residence....	3.00
State resident to trap statewide.....	7.50
Nonresident to trap statewide.....	50.00

In Virginia, no one is allowed to hunt or trap on another's land without the landowner's permission.

Trappers must attach their name and address to any traps set on another's land, and must visit all their traps once each day to remove all animals caught therein.

Squirrel may not be trapped.

Bear may not be taken in steel traps.

Rabbits may be trapped statewide November 15-January 31; bag limit 6 a day, 75 a season (hunt and/or trap).

Mink, muskrat, raccoon, beaver, opossum and otter may be trapped statewide December 1-March 31, except that raccoons may be trapped only January 1-March 15 in Essex and King and Queen Counties and may not be trapped at any time in the counties of Alleghany, Bath, Bland, Botetourt, Buchanan, Carroll, Craig, Dickenson, Floyd, Giles, Grayson, Lee, Montgomery, Pulaski, Roanoke, Rockbridge, Russell, Scott, Smyth, Tazewell, Washington, Wise and Wythe.

A landowner may shoot furbearing animals except beaver, muskrats or raccoons, upon his own land during closed season. When muskrats or raccoons are damaging crops or dams the owner of the premises may have the same killed under permit obtained from the game warden of the county authorizing same.

Foxes may be trapped statewide November 15-January 31. County exceptions: Nelson — November 1-January 20; Albemarle — November 1-November 30; Buchanan, Richmond — continuous open season; Clarke, Fauquier, Loudoun and Rappahannock — trapping foxes prohibited.

# Water Conservation

By H. B. HOLMES, JR.

MOST certainly, anything that is essential to all forms of life is of sufficient importance to warrant each of us knowing something about it. Water is vital to all life and is one of our most important natural resources. Those of you who live closest to it know more about it than others who are less fortunate and you appreciate more fully the need for its proper conservation. Sometimes people think of conservation as meaning "saving" or "nonuse." In the water resources field that is far from the correct definition. Here it means "wise use and intelligent development" and that is the way water should be treated if we are to derive the greatest benefit from it.

This essential natural resource can be, and at different times is, either friend or foe. Its proper conservation requires that we welcome and encourage its friendliness and control it, or stay out of its way, when its mood is ugly and its behavior results in damage.

Nature has provided that, on a world-wide basis, the total quantity of water does not change. It has many different forms and may occur as a solid, a liquid, or a gas. It cannot be worn out, but it may be abused, and in going through the hydrologic cycle it is distilled and purified. The hydrologic cycle is made up of the various phases through which water passes in falling as precipitation (rain, snow, hail, or sleet) to the earth's surface, moving under the force of gravity, going back into the atmosphere as vapor, forming clouds, and returning to the earth's surface as precipitation. It is Nature's way of replenishing our water supply automatically, although not always on a predictable schedule.

In thinking about or working with water, it is well to keep certain things in mind. Among these might be listed:

(a) Whatever it is doing, it does every second of each day. It has no 40-hour week and it does not sleep or stop for a rest.

(b) It is always being acted on by gravity which causes it to fall, to seep into the ground, to move on the surface and through the permeable parts of the earth, and to flow to the sea.

(c) Under most conditions some of it is being taken into the air through evaporation or through plants by transpiration. Often these are grouped together and referred to as evapo-transpiration losses. During the growing season they are quite large.

(d) Nature has first call on water that falls to the earth's surface. Man must be content with what is left.

(e) In many instances, the pollution of water is equivalent to destroying the supply since it is not suitable for further use until it is properly treated.

(f) It is dangerous to build on an area subject to floods.

(g) In the use and development of water resources,

the more nearly we conform to the amount supplied and the placing and moving of it by Nature, the easier will be our tasks and the better will be the results. Most developments have reasons against as well as reasons for their execution.

History tells of many civilizations which have declined and disappeared due to the failure to practice good conservation measures. It is not possible for us to constitute or understand fully the reasons for what now appears to have been shortsightedness but it is probable that ignorance played a very important part. Facts which to us are matters of common knowledge were not known or understood by people centuries ago. It is not difficult to imagine that some of them wondered why it was that the oceans never seemed to run over even though water flowed into them constantly.

Today, however, there is available a great amount of information concerning the behavior of water and the results which may be attained by following certain procedures. But, in such a field, there are bound to be differences of opinion which serve as the basis for many discussions. Oftentimes these differences may be traced to a lack of correct information. Facts are not controversial but, sometimes, expressed opinions are biased in keeping with the ends desired. However, that should not necessarily be condemned. Bias may be more a sign of sincere interest than an indication of wrong intent. One of the arguments about which much has been written is the so-called "big dam—little dam" controversy. Actually there is no more basis for such an argument than there is for an "automobile—bicycle" argument or for a "pony—horse" argument or for a "big hammer—little hammer" argument. Each type of dam has a definite purpose and the appropriate one should be used if it will accomplish the desired results and can be justified on an economic basis (benefits exceeding costs). Facts are needed and facts should be used as the basis for action in the conservation of water.

Courts have played and continue to play a most important part in our water resources and the rights pertaining to them. Since May 6, 1776, when the General Convention passed an ordinance on the matter, there has been on our statute books a provision under which "The common law of England, in so far as it is not repugnant to the principles of the Bill of Rights and the Constitution of this State, shall continue in full force within the same, and be the rule of decision, except as altered by the General Assembly." In some instances, the General Assembly has enacted legislation affecting specified uses of water but, in many cases, decisions still rest with the courts which use the common law as the "rule of decision." In making their decisions the courts in Virginia, like those in the other eastern states, have adhered to the so-called riparian

General Holmes is commissioner of water resources for the Virginia Department of Conservation and Economic Development, Richmond, Virginia.





U. S. Forest Service Photo

The courts of Virginia have adhered to the so-called riparian doctrine, under which no one owns the water flowing in watercourses (such as Roaring Run near Eagle Rock in the Jefferson National Forest, above) or in well defined underground channels.

doctrine. Under the riparian doctrine no one owns the water flowing in watercourses or in well defined underground channels. However, the owners of land bordering on these streams have very definite rights to the use of the water. Originally the riparian doctrine provided that no riparian proprietor could do anything which would change the natural flow, either in quantity or quality, of a stream past other riparian lands. That has been changed so as to allow "reasonable uses" of the water. Some of these reasonable uses have been defined in different court cases, but the usually accepted understanding is that questions concerning the reasonableness of a use of water are for juries to decide on the basis of the facts in each individual case. The riparian doctrine is flexible and lends itself to court interpretations in keeping with the changing needs for water in a given area.

The Constitution of Virginia, which is a restraining instrument, is almost silent on matters pertaining to water resources. On the other hand, the Code (legislation of a general nature) includes many water laws. For example, there are laws covering the use of water for mills, the generation of hydro-electric power, and for public supplies. A recent (1956) law provides a means for obtaining a clearance from a court for the impoundment of flood waters in a watercourse before spending the money to build a dam. This is permissive legislation and many impoundments are being built in watercourses without first obtaining such a clearance simply because the builder is willing to take a chance on some downstream riparian proprietor complaining or taking the matter to court. The question of water laws is most interesting and very important to water conservation undertakings.

The federal government also is interested in our water resources. That interest and activity is demonstrated through the operation of a large number of federal agencies and the existence of many federal laws. The United

States Department of Agriculture has several programs affecting water resources. Probably the most important of these is under the Soil Conservation Service. In Virginia there are some two hundred federal employees assisting in the work of that service. The county technicians are available to assist in the selection of methods promising effective retention of soils and their protection against erosion, suitable ground cover to reduce runoff and increase infiltration of water, and works to help in the aims of this important program. They also assist in the operation of the Watershed Protection and Flood Prevention Act (Public Law 566) under which appropriate local groups may have studies made of a watershed and, if approved, receive financial assistance in its development. There are many instances in which the services of these federal employees are joined with the beneficial activities of the county agents of the Virginia Agricultural Extension Service (VPI).

Under Congressional directives the chief of engineers, acting for the U. S. Department of Defense, conducts studies of proposals for improving the navigable capacity of certain rivers and harbors and for reducing major flood damage in our river basins. Each such study is important to all of the residents and other interests of the basin. These studies have been made for most of our rivers and the reports are available for examination.

Thus, over the years, governmental agencies have taken water resources action which seemed appropriate at the time. Undoubtedly the demands on our water resources are increasing and will continue to mount as our population grows, as our standards of living rise, as our civilization becomes more complex, and as certain areas are industrialized. Thus proper conservation (wise use and intelligent development) may well require greater prevision in order to visualize the problems which lie ahead,

(Continued on page 22)



## Nature Camp in the Blue Ridge

By MRS. FRED SCHILLING

*Director, Nature Camp, Inc.*

Commission Photos by Shomon and Cutler

FIRST the thought or glimmer of inspiration, surging up from the deep recesses of the mind, then the spoken word; the planning or blueprint of what is to be done, then the accomplishment of the plan, or the bringing into material existence that which originally existed only in the realm of thought is the life story of all creative work, and this, too, is the story of the beginning and constantly expanding growth of the Virginia Nature Camp.

In January of 1944, the conservation committee of the Virginia Federation of Garden Clubs, of which I was chairman, decided that probably the most effective way to attain any worthwhile and lasting results in our efforts to aid the conservation movement would be to appeal to and teach the youth of the country. Thus they would be influenced in the formative period of their lives, and in their young minds would be created a feeling of responsibility for the future of this country and the great natural resources with which it has been so freely endowed. Mrs. Helen Worth Gordon of the United States Forest Service was present at the meeting of this committee when this was discussed. When Mrs. Gordon was asked if she thought it would be advisable to consider sending a representative to the Audubon Camp in Maine to study there and return and act more or less in the capacity of instructor in the work among the young people, her reply was to the effect that it was beyond her comprehension why a state with all the natural beauty and resources of Virginia should find it necessary to study nature lore anywhere else except in Virginia, and why not have a camp in Virginia for the young people. As nearly as thought can be traced to its origin, that remark of Mrs. Gordon's was the beginning of a desire in my mind to sooner or later have, in our own state of Virginia, a camp in which conservation in all its phases would be taught to boys and girls—taught under pleasant surroundings and where they could enjoy nature in companionship with others of similar interests. Mrs. L. R. Curry of Richmond, who was then President of the Virginia Federation of Garden Clubs, agreed that it would be of benefit and later, when plans for the actual establishment of a nature camp were made and approved by the Board of the Federation, lent her support and encouragement to the project.

From its beginning, with twenty-four campers and six on the staff, Nature Camp has seen steady growth. For ten years we camped in government-owned facilities at Sherando Lake. In 1948, during the administration of Mrs. James H. Adams of Richmond, the camp grew from one session to two, making a total of ninety campers. It was during that year that Mr. A. L. Wingo of the State

Board of Education became interested in the work done at Nature Camp, and helped us in many ways. It was during that camping season that the Commission of Game and Inland Fisheries first sent its technicians to help with the wildlife instruction, and that organization has helped each year since.

During the first ten years of Nature Camp, the growth was amazing, showing that it was meeting and fulfilling a need long existing, though not fully recognized. The camp outgrew the facilities at the Lake Sherando Camping Area and in November 1951 the Board of Trustees decided on the site for their own camp buildings on Big Mary's Creek near Vesuvius, Virginia, in George Washington National Forest. One year of camping was lost, the year 1952, but each year since then the camp has opened to an



Mrs. Schilling is pictured here standing among campers in the Nature Camp's dining hall.



Busy youngsters make use of the camp's excellent library and museum facilities.



enthusiastic group of campers and staff. The early history of the Nature Camp cannot be closed without mentioning the help, encouragement and inspiration of the late Dr. Justus Cline of Stuarts Draft, Virginia.

On June 22, the camp opened for its seventeenth year of camping with an enrollment of around 275 girls and boys. The physical part of camp consists of eight brown buildings which blend in with the forest around them. The last building erected houses a laboratory, museum and library. The museum, with its attractive displays on different facets of nature, is an important highlight of camp. Many of these displays are made by the older campers, who absorb a great amount of knowledge in the process of making them. The library contains many of the best reference books and field guides on the subjects taught at camp, and it is expanding each year because of the generous gifts from friends to the library fund.

The young people who have the privilege of attending this summer's session will have (just as many of their friends will have in other camps) swimming in clear, cold water from a mountain stream, hiking in the forest, singing, skits, games, movies, and folk dancing. A fine group of counselors and a meaningful devotional program build a healthy atmosphere for this recreation. But the main purpose of Nature Camp is to bring together girls and boys, from the fifth through the twelfth school grades,

and to give them an opportunity to learn more about the world around them and to try to develop in them a desire to protect their natural heritage.

How is this purpose fulfilled? First, the campers themselves are carefully chosen. Almost all of them are very well-rounded individuals, with interest and ability, and the desire to take advantage of the educational opportunities offered at Nature Camp. To receive an application inviting them to return to camp is considered an honor by the campers. The second important asset is the qualified staff of instructors and other helpers. The camp has been organized so that the best use can be made of these assets. The campers have been divided into age groups—senior high school, 7-8 grades and 5-6 grades. Each group has a camping period of two weeks. Then the study of nature has been separated into classes on astronomy, entomology, birds, forestry, herpetology, wildflowers, geology and wildlife. Efforts are made to clarify the importance of the interrelationship in these parts of the natural world, and to stress the need for the wise use and preservation of all our natural resources.

Almost all classes are conducted on hikes in the fields where identification can be made of wild flowers, birds (both by sight and by song), trees and so on through all the subjects. The instruction has been carefully graded to avoid too much repetition of material from previous summers, although some repetition is always needed. Senior campers are encouraged to concentrate more on the subjects of their choice, and special trips are planned for them. Education films are supplied by Virginia Polytechnic Institute, the Commission of Game and Inland Fisheries, and the United States Forest Service.

The campers enjoy studying nature with others of similar interests, and this is evidenced by the fact that many campers return year after year, and many of them become counselors or instructors after they are too old to come as campers.

One of our fine young staff members had this to say about the camp, "The lesson that the reception and success of Nature Camp has for this country is that such an idealistic camp is practical and at the same time meets an urgent need. This need for conservation education does not only exist in Virginia but all over the country. Other states could well follow the example of the Virginia Federation of Garden Clubs. For only through an enthusiastic, informed and dedicated public can we protect our natural resources from the wastefulness of this age." We shall leave many young people on the waiting lists this year. Another camp or branch of Nature Camp would do well in the Tidewater area. Campers could rotate from one camp to the other, and in that way they would learn the flora and fauna of both sections of the State and more young people would be privileged to attend such a camp. Surely there must be someone who will accept this challenge.

\* \* \*

For further information on the Virginia Federation of Garden Clubs Nature Camp, write to Mrs. Fred Schilling, Director, Nature Camp, Rt. 2, Box 148, Afton, Virginia.



Campers learn basic concepts of natural resource conservation from professional resource workers.



Religion is not neglected at the camp. Pictured is the camp's new outdoor chapel.

## **WATER** (Continued from page 19)

better coordination to insure the greatest public benefit, and more supervision to prevent waste and abuse. In some instances, these actions will lie within the province of individuals, small organized groups, or local governing bodies. At other times they may require action at the state or federal level. In any event, if the foreseeable water resources problems are to be solved intelligently and advantageously it is necessary that the majority of

all citizens take a real interest in them before such problems become critical. After all, "government" is "the people" and, if people are not correctly informed, "government" may make costly and harmful errors.

Each of us has an obligation not only in the field of water but also in the field of other natural resources. Use them wisely, develop them intelligently, and leave them in better condition for those who are to follow. Remember, we are merely custodians for a few years.

### *Bird of the Month:*

## *Ruby-throated Hummingbird*



**T**INIEST of all our birds, more like a sprite than an earthly creature, the ruby-throated hummingbird is one of the most remarkable of all warm-blooded animals. As small as it is, its energy seems inexhaustible. So rapid are its wing movements that it is only in recent years that cameras have been fast enough to stop their blur and make a sharp picture of the wings.

The first part of the bird's name, "ruby-throated," comes from the brilliant metallic red on the throat of the male. In certain lights this red is dark and dull, like a coal covered with ash. When the head turns and the light is reflected from the throat patch, the radiance flames out as if someone had blown upon the coal. The back is of a lustrous green. The female lacks the throat patch, but has a green, though duller, back. It also has, in the white tips to the outer tail feathers, a touch of color that is denied the male.

It is the noise made by the wings as the bird zooms past

that suggests the second part of the name. Our early colonists were amazed at this little fairy. Thomas Glover, a physician who spent several years in Virginia, wrote home that "The Humming-bird taketh his name from the noise he makes in flying: This is of divers colours, and not much bigger than a Hornet and yet hath all the parts of a bird entire." The only notes made with the throat are a series of high, chattering squeaks. This is quite noticeable when several hummers are feeding at a bank of jewel weed along a stream or at a bed of petunias in the garden.

Because of the rapid movements of the wings the hummingbird is a high-class living helicopter. It can fly in any direction—forward, sideways or backward. It can remain in one spot in the air indefinitely. At other times the flight is so rapid that the eye can scarcely follow it. The hummingbird will sometimes do a fascinating air dance before a female that it wishes to attract, or even before an enemy that has aroused its anger, swinging like a pendulum in the bottom half of an exact circle, up and down, back and forth, for a minute or more at a time.

The food of this little creature is as dainty as its appearance. Everyone knows that it drinks the sweet juices from the flowers, but not everyone realizes that its best food consists of the tiny insects that are caught in these juices. Its food is taken on the wing as it poises before one blossom after another on a flower stalk. Apparently the bird has a more or less regular round, as it visits a clump of flowers again and again.

The lovely little nest, scarcely more than an inch across, is made of soft plant down, spider webs and lichens, so much like the branch on which it is set that discovering one is a real achievement. In it two white eggs, like little peas, are laid. The naked young, no larger than bumblebees when first hatched, are sad looking little creatures with small promise of their gorgeous future.

The mother bird feeds them by pushing her dangerous-looking bill down their throats and regurgitating her partially digested food. The male, like some renegade human fathers, seems to take little interest in the brood.

—DR. J. J. MURRAY





## Game Commission Releases Pheasant Production Figures

Some 2,000 pheasants, for the most part crosses between Iranian blackneck and Chinese ringneck birds, have been liberated in four specially-selected areas in the Old Dominion since last September, but as of June 1, few verified reports of nests or young of these rare birds had been recorded. Release areas are in Charles City County, Surry County, Halifax County and Camp Pickett.

Should young pheasants be produced in the wild here this spring, it will not only mark the first time pheasants with Iranian blackneck "blood" have reproduced in the wild in the United States, it will be the culmination of four years of work on the part of the U. S. Bureau of Sport Fisheries and Wildlife and the Virginia Commission of Game and Inland Fisheries to accomplish that end.

It was in Iran in the spring of 1956 that Dr. Gardiner Bump of the U. S. Bureau of Sport Fisheries and Wildlife collected the wild eggs and hatched the chicks that eventually wound up at Virginia's game farm. The 14-week-old birds were flown from Iran to game farms in two other states, but because many of them died, the survivors were transferred to the Virginia State Game Farm where they would be under the experienced eye of superintendent Dennis Hart.

Hart received seven hens and 11 cocks of the western Iranian strain of blackneck pheasant on December 5, 1957, and four hens and four cocks of the eastern Iranian strain on December 7, 1957.

From the Ohio Department of Natural Resources on March 12, 1958 came a donation of 35 Chinese-Imperial Valley ringneck pheasant hens and three ringneck cocks, and on March 17, 1958, an additional 15 ringneck hens were obtained from Tennessee.

The ringneck hens were crossed with the surplus blackneck cocks, and 1958 game farm production records showed that 45 pure eastern Iranian, 84 pure western Iranian, 480 eastern-Chinese crosses, 1,176 western-Chinese crosses and 309 pure Chinese pheasants were on hand as of July 28, 1958.

From these birds, 33 western Iranians were sent to Ohio and Missouri and 16 eastern Iranians were sent to Tennessee for experimental purposes. Liberated in 1958 were: 300 western-Chinese



Wardens E. E. Walters and W. C. Ansell, Jr., joined with the Norfolk County Anglers Club on May 21-23 at Cradock to help make the Norfolk County Sportsmen's Show a success.

crosses in Charles City County September 26; 50 western-Chinese crosses on Hog Island in Surry County October 3; 250 eastern-Chinese crosses in Halifax October 3; and 150 pure Chinese on Camp Pickett in Nottoway, Brunswick and Dinwiddie Counties.

To date in 1959, pheasant releases have included: 400 western-Chinese crosses at Sandy Point in Charles City County March 20; 100 eastern-Chinese crosses in Halifax County March 24; 183 pure Chinese and 17 western-Chinese crosses on Camp Pickett March 31; 151 eastern-Chinese crosses in Halifax County April 1; and 405 western-Chinese crosses at Weyanoke area in Charles City County and on Hog Island April 3.

New to the Virginia game farm—

in fact, new to the United States—are 18 hen and 9 cock Japanese green pheasants, which were flown to the Virginia game commission direct from Tokyo. Game biologist Herm Tuttle picked up the crated Japanese pheasants at Washington's National Airport on April 22, and as many as possible of the pure Japanese strain will be raised at the game farm this year.

In addition to these new birds, birds remaining at the game farm are being bred to produce all of the pure strains and crosses described above plus another cross produced by mating western Iranian-Chinese cross hens with pure western Iranian cocks.

## Almost 900 Blinds Used on Back Bay-Currituck Sound Area

Research biologists seeking ways to improve waterfowl conditions on Back Bay and Currituck Sound found that there were 887 waterfowl blinds on these two adjoining areas last season, according to a quarterly progress report from the study team.

On Back Bay in Virginia were 77 shore blinds, 225 open water blinds and 24 marsh blinds for a total of 326 blinds, while on Currituck Sound in North Carolina, 561 blinds, made up of 208 point blinds, 317 bush blinds and 36 float blinds, were found.

Other activities of the cooperative research team, made up of representatives of the Virginia Game Commission, the North Carolina Wildlife Resources Commission and the U. S. Bureau of Sport Fisheries and Wildlife, were aerial waterfowl inventories, waterfowl bag checks, other measurements of hunting pressure, collection of waterfowl gizzards for food habit studies, installation of water level recorders, preparation of maps, surveys of vegetation and water quality, preparation of news release material and review of pertinent literature.





### Preliminary Research Indicates Existence of Dove Production-Harvest Units

Three independent and self-sufficient mourning dove production-harvest areas in the United States are indicated by nationwide research, according to the Department of the Interior.

The areas are: (1) all of the United States east of the Mississippi River, plus Louisiana; (2) the area from the Mississippi River to the Rocky Mountains, including Montana, Wyoming, Colorado and New Mexico; (3) the area from the Rocky Mountain States to the Pacific Coast.

About 95 percent of the doves shot inside a unit were produced in that unit; and 96 percent of the harvested production of a unit was shot inside the unit or in Mexico or Central America.

### Kelley Resigns as Alabama Conservation Director

Claude D. Kelley, Atmore, Alabama, businessman and president of the National Wildlife Federation, resigned as director of the Alabama Department of Conservation, effective April 30, 1959. He had served in the position since January 19, 1959.

In a letter to Governor John Patterson, Kelley cited business reasons as the motive for his resignation. The *Birmingham News*, however, in an article on April 29, said: "But persons close to Kelley said continual interference by other office holders, men not in the Conservation Department, was the real reason."

The *Mobile Press*, on May 2, editorialized, in part, as follows:

"The resignation of Claude D. Kelley, Atmore businessman, from the post of state conservation director, should go far toward convincing the Alabama Legislature that it is time to give this vital department more freedom from politics.

"Kelley was almost unanimously considered the man best fitted to clean up the mess. But what happened to

this capable man? The political spoils system reared its ugly head to interfere with him and to create conditions which he could not tolerate.

"Kelley himself has not been hurt by this experience, for, acting like the man of principles that he is, he stepped out of the picture. He rightly refused to become a puppet. But the natural resources of Alabama are likely to suffer considerable destruction as a result of the political maneuverings that actually forced Kelley to resign. A law reducing the influence of politics in Conservation Department affairs would make it possible for the state to attract to the



For sale—one trophy too big for the house of its present owner. Hayden J. Blankenship, Box 772, Narrows, Virginia, bagged a 915-pound elk in Giles County last fall, had its head mounted, now has nowhere to put it!

agency's jobs career men with broad knowledge of its functions."

Named to succeed Kelley was William C. Younger, 39, who formerly served as assistant director of the Department of Industrial Relations. Younger holds a B. S. degree in law from the University of Alabama, and served as an assistant attorney general prior to being appointed to the Department of Industrial Relations position in January 1959.

### Current Outlook for Waterfowl Production Considered Unpromising

Current reports indicate an extreme drouth in the prairie portions of Canada where about 60-70 percent of North America's ducks are produced and waterfowl breeding conditions for this year presently are "not promising," the Department of the Interior reports. In fact were it not for two somewhat meager possibilities the reports would warrant extreme pessimism about waterfowl production this year, the Department said.

One of these possibilities is that the rains will come in sufficient quantities before it is too late. The other is that the birds which are driven from their customary breeding grounds by drouth will find satisfactory nesting places farther north, or that the production from the potholes that have water will make up to some extent for the big losses in the potholes now dry.

Reports from southern Manitoba and southern Saskatchewan indicate that 75 percent to 90 percent of the potholes where the ducks are produced are either dry now or will be dry before the end of the nesting period.

### More Counties Hire Dog Wardens

The counties of Highland, Powhatan, Fluvanna and Wise have joined the ranks of those which have approved the hiring of dog wardens. The action in Highland County became effective May 1, while the other county dog wardens went on duty July 1.

Fifty-four of the State's 98 counties have now taken advantage of this local option made possible by the 1958 General Assembly. In every county making this change, game wardens are able to spend nearly double the time previously spent in game and fish law enforcement, and the local dog warden is also able to spend full time in dog law enforcement, meaning fewer livestock losses and increased license revenue to the locality.



## Alaska Gets Politically Dominated Fish and Game Department

Alaska will have the worst kind of politically dominated fish and game department under an act just passed by its State Legislature, according to the Wildlife Management Institute. The department was created in response to a provision of the statehood act wherein Congress withheld the new state's fish and game resources until the Secretary of the Interior certified that the state legislature had made adequate provision for their "administration, management and conservation . . . in the broad national interest."

Secretary Seaton, disregarding the advice of leading conservationists, certified this to Congress on April 27. He expressed disappointment with some parts of the act. He said he felt obligated to test only the adequacy of the legislation and did not regard some parts as being ideal. The conservationists feel that his obligation was to make a recommendation as the result of a Federal law, and that neither he nor the Congress can logically find that the Alaska setup safeguards the public interest. If Seaton's certification is not challenged by Congress, Alaska will take over its fish and game resources on January 1, 1960.

Under the new organizational plan, the department commissioner is appointed by the Governor. The fish and game board has no administrative authority and its rule-making powers can be thwarted by the "emergency" discretion of the commissioner. The act provides no permanency for department personnel and, since the commissioner can be replaced by succeeding governors, the organization has no assurance of stability.

## Agreements Creating 15,000-Acre Public Hunting and Fishing Area Ratified

A new 15,000-acre public hunting and fishing area has been created in western Virginia as a result of action taken by the Virginia Commission of Game and Inland Fisheries in cooperation with two private landowners and the federal government.

At its regular meeting in Richmond May 22, the game commission ratified cooperative agreements which had previously been signed by Fairy Stone

Farms Inc. and the Lester Lumber Co. Fairy Stone Farms agreed to open to the public over 6,000 acres of land adjoining Fairy Stone State Park, and the Philpott Reservoir in Patrick and Henry Counties, while Lester Lumber Co. provided tracts of 1,800 acres and 2,000 acres near Martinsville. Both firms have their main offices in Martinsville.

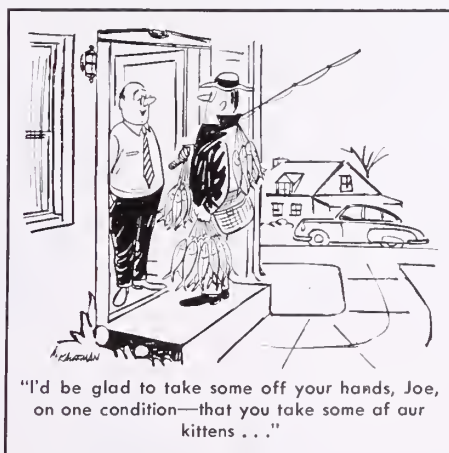
Just prior to the meeting, the commission received an agreement signed



At the May 6-7 meeting of the Atlantic Waterfowl Council at Virginia Beach, the Charles Banks Belt Award for outstanding accomplishment in waterfowl restoration was presented to L. G. MacNamara of the New Jersey Division of Fish and Game.

by Assistant Secretary of the Interior Ross Leffler which turned over to the state game body the management of the fish and game resources in the waters of Philpott Reservoir and on the lands around the reservoir owned by the U. S. Army Corps of Engineers. This land and water area composes some 4,747 acres.

All of these lands, totalling almost 15,000 acres, will be managed as one



"I'd be glad to take some off your hands, Joe, on one condition—that you take some of our kittens . . ."

wildlife management area by the game commission, which, according to the terms of the agreements, must post boundary signs, improve wildlife habitat and provide law enforcement personnel.

## Fishing Good at Philpott and Kerr Reservoirs

The Buggs Island Fish and Wildlife Organization informs us that Clarence A. Bowen of Virgilina, Virginia, and John T. Oakes of Oxford, North Carolina, took 14 largemouth bass weighing 55 pounds from one spot in Kerr Reservoir (Buggs Island Lake) within a period of 45 minutes on the afternoon of May 7. And on April 29, according to John W. Yeaman, Pete W. Shelton of Martinsville caught a 12-pound bass and a 7½-pound bass the same day on Philpott Reservoir near Fairystone Park.

## Claytor Producing Big White Bass

White bass weighing up to two pounds are being taken this spring in Claytor Lake, according to Nat Bowman, Virginia game commission fish biologist. This news spells success for the white bass stocking efforts begun in 1957 when 100 adult white bass were brought in from Tennessee, the biologist explained.

Bowman said the white bass reproduced nicely in 1958 and are now ready for catching. The state hopes to accelerate the growth of the bass this year by the addition of threadfin shad for forage.

## Recreation Business Major Contributor To New Hampshire's Economy

The State Fish and Game Department has long suspected—without adequate proof—that the recreation business is one of New Hampshire's major sources of income. All doubt has been dispelled by the 1957 "Initial Town Property Survey Report" published by the New Hampshire Planning and Development Commission and the New Hampshire Economic Growth Survey Committee.

The survey reveals that in 1957 recreational types of property—which include seasonal homes, seasonal home sites, the accommodations industry, boys' and girls' camps and other commercial recreational property provided \$5,492,000 or 10.6% of the total local property tax yield. Farming property provided \$2,948,000 or 5.7% of the total local property tax yield, while manufacturing property provided \$6,923,000 or 13.3% of the total local property tax yield in 1957.

# LETTERS AND COMMENTS

Letters of general interest are welcomed. They should be signed, but initials will be used on request.

## An "Awakened" Deer Hunter

I HOPE that I am just one of many Virginia hunters who will write to thank you for the splendid article "Wake Up, Mr. Deer Hunter" in the October issue of VIRGINIA WILDLIFE. It is most timely and logical and should go far toward convincing those many well-meaning but misinformed people who favor a "buck only" season for our deer population that they have based their judgment on an erroneous foundation.

*Allan S. Noyes*  
Retreat Plantation  
Amherst, Virginia

## Editorial Draws Missourian's Praise

YOUR editorial, "Autumn Days," in the October issue of VIRGINIA WILDLIFE was right down my bird watching alley. As a birder-conservationist I have always contended nature lovers and true sportsmen are brothers under the skin and all are conservationists at heart regardless of the manner in which they pursue their hobby. I'm convinced a lot of birdwatching blood flows through your conservation veins. I enjoy every issue of your fine magazine and consider it one of the finest in this country.

*J. Earl Comfort*, Regional Director  
Audubon Society of Missouri

## Gun Safety Spread Comment

I THINK we here at the National Rifle Association would be quite remiss if we did not send along to you comments on that fine center spread which appeared in the November issue of VIRGINIA WILDLIFE.

As I am certain you know, the National Rifle Association is vitally interested in this matter of safety in the hunting field, as we are in all phases of safety involving the proper use of firearms. These pages in your magazine certainly put emphasis on some of the most im-

portant causes of accidents. We are well convinced that this is a subject that must be hammered at constantly if we want the accident rate in the hunting field to take the downward curve everyone desires.

*C. Richard Rogers*, Director  
Special Service Division, NRA  
Washington, D. C.

## Articles Influence Popular Attitudes

I HAVE been reading VIRGINIA WILDLIFE for more than a decade. Though I always enjoy it, the December issue was exceptionally good—all the articles being factual, constructive, informative, and contributing toward the matter of influencing popular attitudes toward various problems in the wildlife field. Regrettably, there are too many "state" magazines dealing largely with "How To Do It" or "Where To Go" or with entertainment material. Congratulations!

*R. Wayne Bailey*, Game Biologist  
Conservation Commission of West Virginia

## Virginia Preserves Have Good Reputation

LATE but nonetheless sincerely we would like to say thanks for your running the article "Bobwhite Quail and Red-eyed Gravy" in your October issue of VIRGINIA WILDLIFE.

From our standpoint the Game Commission publications throughout the country have paid too little heed to the growth of shooting preserves. We certainly welcome the kind of reporting and coverage which you have given this topic.

You might be interested to know that almost without exception all comments which we have heard about shooting preserves in Virginia have been good. The shooting preserve operators in your state seem to have a greater awareness of the importance which natural hunting con-

ditions have in building sportsman acceptance for this type of shooting sport. We know that your department rightly takes credit for a lot of this.

*Harry Hampton*  
Sportsmen's Service Bureau, N. Y. C.

## Service to Schools

IN READING the February issue of VIRGINIA WILDLIFE which we received at school today, I found a fact listed under your "Cover" comments which was valuable to me and may keep me from unintentionally breaking the law. I did not know the great horned owl was protected. Just another example of the value of VIRGINIA WILDLIFE to subscribers, especially schools. I look forward to each issue of VIRGINIA WILDLIFE and many of our pupils read it in our school library.

*A. E. Wright*, Principal  
Waynesboro Public Schools

## Liked "Trapping Bear Facts"

I THINK your story by George H. Harrison in the December issue of VIRGINIA WILDLIFE on trapping bear facts is the most interesting story on bear I ever read.

*Edgar A. Wimmer*  
Bland, Virginia

## March Trout Cover Appreciated

I WOULD like to congratulate you and the VIRGINIA WILDLIFE staff on your March 1959 cover. This was not only very appropriate for this time of year, but was a very beautiful and colorful picture. I feel that the artist should be congratulated for the splendid work.

*Carey L. Quarles*, Virginia Tech Station  
Blacksburg, Virginia

Virginia Wildlife  
Box 1642  
Richmond 13, Virginia

Gentlemen:

Please send VIRGINIA WILDLIFE for ONE YEAR to

Name.....

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City and State.....

and renew my subscription for TWO YEARS.

Enclosed is check (or money order) for \$2.00, made payable to the Treasurer of Virginia.

Signed.....

Street.....

City and State.....





*Hello --*

THIS MONTH WE HAVE A SPECIAL OFFER FOR  
OUR REGULAR SUBSCRIBERS.

**WHY?** -- We need new subscribers, new readers -- new conservationists

**THE OFFER** -- A two-year renewal for the subscriber PLUS  
A one-year new subscription for his friend for only  
\$2.00 for both subscriptions -- 50c less than  
the regular rates.

**THE RESULT** -- A gift for a friend -- with a card announcing  
his gift from you -- and  
24 more copies of VIRGINIA WILDLIFE for you.

**HOW?** -- Fill in the form on page 26, make a check payable to the  
Treasurer of Virginia, and mail both to:  
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Box 1642  
Richmond, Virginia

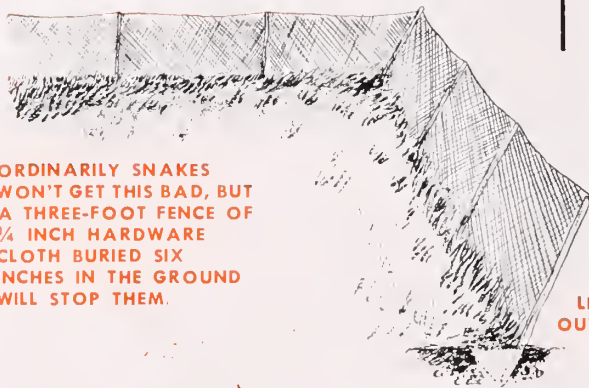


*Thanks a lot  
We knew you'd help!*

# Controlling SNAKES

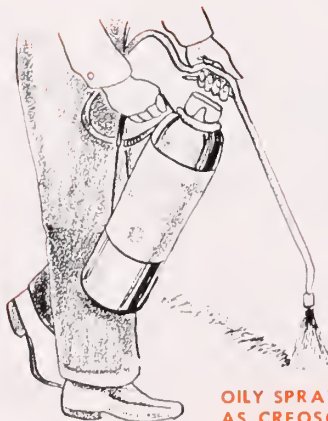


REMOVE THE SNAKE'S FOOD  
SUPPLY—RATS, MICE, FROGS—  
AND HE WILL LEAVE TOO!



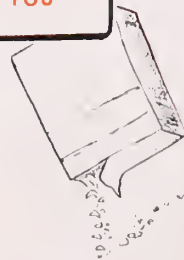
ORDINARILY SNAKES  
WON'T GET THIS BAD, BUT  
A THREE-FOOT FENCE OF  
1/4 INCH HARDWARE  
CLOTH BURIED SIX  
INCHES IN THE GROUND  
WILL STOP THEM.

LEAN  
OUTWARD

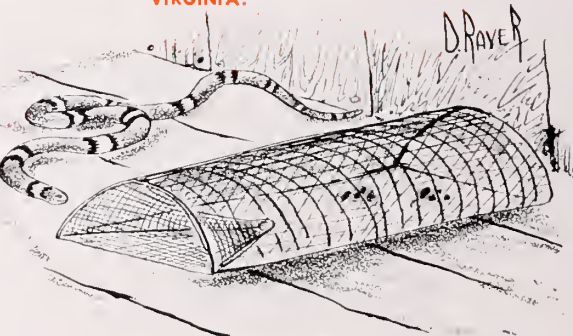


OILY SPRAYS SUCH  
AS CREOSOTE  
IRRITATE SNAKES  
AND DRIVE THEM  
AWAY.

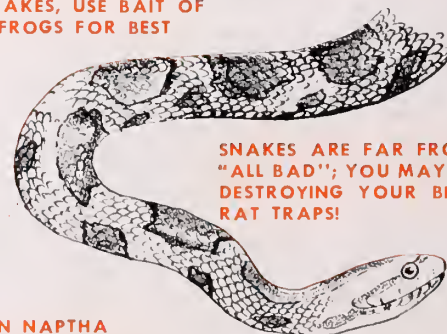
BE EXTREMELY  
CAREFUL WITH  
GASES SUCH AS  
CYANIDE. THEY  
CAN KILL YOU  
TOO!



LONG FUNNEL TRAPS OF  
WOOD OR WIRE OFTEN WILL  
CATCH SNAKES, USE BAIT OF  
MICE OR FROGS FOR BEST  
RESULTS.



SNAKES ARE FAR FROM  
"ALL BAD"; YOU MAY BE  
DESTROYING YOUR BEST  
RAT TRAPS!



COMMON NAPHTHA  
FLAKES—EVEN MOTH  
BALLS MAY DISCOURAGE  
SNAKES.

BEFORE TAKING ANY  
CONTROL MEASURES,  
LEARN THE COMMON  
POISONOUS SNAKES  
OF YOUR AREA.  
THEN DON'T  
HANDLE ANY  
LIVE SNAKE.



COTTONMOUTH.  
SWAMPS ALONG  
LOWER COAST.



COPPERHEAD.  
INLAND, STATEWIDE



TIMBER RATTLER.  
WOODLANDS, MOSTLY WESTERN  
VIRGINIA.